

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

Claims 1-20(Canceled).

21 (Currently Amended): An immunogenic composition comprising ~~a~~ an isolated polypeptide comprising at least eight consecutive amino acids from the amino acid sequence of SEQ ID NO: 4, ~~said polypeptide present in said composition in an amount effective to induce antibodies that recognize SEQ ID NO: 4 in a mammalian subject,~~ and a pharmaceutically acceptable carrier,

wherein said polypeptide is isolatable from *Neisseria* bacteria, and

wherein said said polypeptide in said composition induces antibodies in a mammalian patient that bind to said amino acid sequence of SEQ ID NO: 4 on the surface of said *Neisseria* bacteria and that interfere with the ability of said bacteria to adhere to mammalian cells.

Claims 22-24 (Canceled).

25 (Currently Amended): A diagnostic composition comprising a an isolated polypeptide comprising at least eight consecutive amino acids from the amino acid sequence of SEQ ID NO: 4, which polypeptide is isolatable from *Neisseria* bacteria ~~induces antibodies that recognize SEQ ID NO: 4 in a mammalian subject,~~ said polypeptide associated with a suitable detectable label ~~or detection system.~~

Claims 26-29 (Canceled).

30 (Previously Presented): The composition according to claim 21, wherein said composition comprises a second polypeptide or protein.

31 (Previously Presented): The composition according to claim 30, wherein said polypeptide is fused to said second polypeptide or protein.

32(Currently Amended): The composition according to claim 30, wherein said second polypeptide or protein is an antigen from a pathogenic species that is heterologous or homologous to *Neisseriae* *Neisseria gonorrhoeae* or *Neisseriae* *Neisseria meningitidis*.

33(Previously Presented): The composition according to claim 21, comprising an adjuvant.

34(Currently Amended): The composition according to claim 21, wherein said antibodies also recognize an ~~approximately 85 kD outer membrane~~ protein in multiple *Neisseriae* *Neisseria gonorrhoeae* strains and *Neisseria meningitidis* strains, said proteins appearing as reactive bands of approximately 85 kD on a Western blot.

35(Currently Amended): The composition according to claim 34, wherein said *Neisseriae* *Neisseria meningitidis* strains are selected from the group consisting of *N. meningitidis* HH, *N. meningitidis* MP78, *N. meningitidis* MP3, and *N. meningitidis* MP81.

36(Currently Amended): The composition according to claim 34, wherein said *Neisseriae* *Neisseria gonorrhoeae* strains are selected from the group consisting of *N. gonhorroeeae* FA19, *N. gonhorroeeae* FA635, *N. gonhorroeeae* FA1090, *N. gonhorroeeae* JS1, *N. gonhorroeeae* MS11, and *N. gonhorroeeae* F62.

37(Currently Amended): The composition according to claim 21, wherein said polypeptide lacks the signal sequence spanning amino acids 1-21 of said amino acid sequence of SEQ ID NO: 4.

Claim 38(Canceled).

39(Currently Amended): The composition according to claim 25, wherein said polypeptide is associated with nitrocellulose paper or a latex support bead.

40(Previously Presented): The composition according to claim 25, wherein said composition comprises a second polypeptide or protein.

41(Previously Presented): The composition according to claim 40, wherein said second polypeptide or protein is fused to said polypeptide.

42(Currently Amended): The composition according to claim 40, wherein said second polypeptide or protein is an antigen from a pathogenic species that is heterologous or homologous to ~~Neisseriae~~ Neisseria gonorrhoeae or ~~Neisseriae~~ Neisseria meningitidis.

43(Currently Amended): The composition according to claim 25, wherein said polypeptide lacks a signal sequence spanning amino acids 1-21 of said amino acid sequence of SEQ ID NO: 4.

44(Currently Amended): The composition according to claim 25, wherein said antibodies also recognize ~~an approximately 85 kD outer membrane protein in multiple~~ Neisseriae Neisseria gonorrhoeae strains and Neisseria meningitidis strains, said proteins appearing as reactive bands of approximately 85 kD on a Western blot.

45(Currently Amended): The composition according to claim 44, wherein said ~~N.~~ *Neisseria meningitidis* strains are selected from the group consisting of *N. meningitidis* HH, *N. meningitidis* MP78, *N. meningitidis* MP3, and *N. meningitidis* MP81.

46(Currently Amended): The composition according to claim 44, wherein said ~~N.~~ *Neisseria gonorrhoeae* strains are selected from the group consisting of *N. gonorrhoeae* FA19, *N. gonorrhoeae* FA635, *N. gonorrhoeae* FA1090, *N. gonorrhoeae* JS1, *N. gonorrhoeae* MS11, and *N. gonorrhoeae* F62.

Claims 47-49(Canceled)

50(Currently Amended): An immunogenic composition comprising ~~a~~ an isolated polypeptide comprising an amino acid sequence having 95% or greater sequence identity with the ~~entire sequence of amino acids~~ amino acid sequence of SEQ ID NO: 4, ~~said polypeptide present in said composition in an amount effective to induce antibodies that recognize SEQ ID NO: 4 in a mammalian subject,~~ and a pharmaceutically acceptable carrier, wherein said polypeptide in said composition induces antibodies in a mammalian patient that bind to said amino acid sequence of SEQ ID NO: 4 on the surface of said *Neisseria* bacteria and that interfere with the ability of said bacteria to adhere to mammalian cells.

51(Currently Amended): The composition according to claim 50, wherein said polypeptide ~~lacking~~ lacks the signal peptide spanning amino acids 1-21 of said amino acid sequence of SEQ ID NO: 4.

52(Currently Amended): The composition according to claim 50, wherein said polypeptide contains one to four conservative amino acid replacements in the amino acid sequence of said amino acid sequence of SEQ ID NO: 4.

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Claims 53-54(Cancelled)